Atty Docket No.: 007516.00001

Response dated October 16, 2009

Reply to Office Action of July 21, 2009

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:** 

1. (Currently Amended) A method managing a management activity of at least one managed

object by at least one manager object through a communication network, the method comprising

the following steps:

- providing at least one intermediate object configured to manage said at least one

managed object according to a data set, said management activity being transformed into a set of

results.

- receiving, at said at least one intermediate object, said data set from said at least one

manager object,

- managing said at least one managed object through said at least one intermediate

object, to generate said set of results,

- transferring said set of results from said at least one intermediate object to said at least

one manager object,

- managing at least one further managed object directly through said at least one manager

object, and

- managing said at least one managed object by said at least one manager object via said

intermediate object,

wherein the management of said at least one further managed object and said at least one

managed object occurs only through a single communication network.

2. (Previously Presented) The method according to claim 1 which comprises the step of

establishing the communication between said at least one manager object and said at least one

intermediate object via UDP protocol.

3-4. (Canceled)

5. (Previously Presented) The method according to claim 1 which comprises the following steps:

Page 2 of 13

Atty Docket No.: 007516.00001

Response dated October 16, 2009

Reply to Office Action of July 21, 2009

-managing said at least one further managed object directly through said at least one

manager object and transferring said data set and said results set between said at least one

manager object and said at least one further managed object, and

-managing said at least one managed object through said intermediate object.

6. (Previously Presented) The method according to claim 1 which comprises the steps of

providing a plurality of said intermediate objects and managing at least one managed object

through several intermediate objects of said plurality.

7. (Previously Presented) The method according to claim 1 wherein said intermediate object is

provided with respective reception modules and transmission modules configured so that said at

least one manager object sees said intermediate object as one of said managed objects.

8. (Previously Presented) The method according to claim 1 wherein said at least one intermediate

object comprises at least one respective management module configured so that said at least one

managed object, which is managed by said at least one intermediate object, sees said at least one

intermediate object as said at least one manager object.

9. (Previously Presented) The method according to claim 1 wherein said at least one intermediate

object is provided with one of the following queues:

- an input queue for collecting input messages with respect to said at least one

intermediate object,

- an output queue for collecting output messages from said at least one intermediate

object, and

- a working queue for collecting messages inherent to said management activity

performed by said at least one intermediate object on said at least one managed object.

Page 3 of 13

Atty Docket No.: 007516.00001

Response dated October 16, 2009

Reply to Office Action of July 21, 2009

10. (Previously Presented) The method according to claim 9 which comprises the step of

providing, in said at least one intermediate object, a dedicated module for analyzing the input

messages received by said input queue.

11. (Previously Presented) The method according to claim 10 which comprises the following

steps:

- providing, in said at least one intermediate object, an activity co-ordinating module for

implementing at least one of the following functions:

- instantiating at least one concurrent process,

- updating activity status of the requests in said working queue, and

- creating statistic check messages to be sent to said at least one manager object through

said output queue.

12. (Previously Presented) The method according to claim 9 which comprises the step of

providing a plurality of protocol management modules configured to establish communication to

said at least one managed object through respective different protocols in said at least one

intermediate object.

13. (Previously Presented) The method according to claim 9 which comprises the step of

establishing the communication between said at least one manager object and said at least one

intermediate object by subjecting at least one part of the respective messages to a compression

operation.

14. (Currently Amended) The method according to claim 13 wherein said compression operation

is based on the acknowledgment of a sequence which appears periodically in the at least one part

of the respective messages.

15. (Previously Presented) The method according to claim 14 wherein said compression

operation implements a gzip type method.

Page 4 of 13

Atty Docket No.: 007516.00001

Response dated October 16, 2009

Reply to Office Action of July 21, 2009

16. (Previously Presented) The method according to claim 2 which comprises the step of

indicating that compression of the message transferred by UDP is done.

17. (Previously Presented) The method according to claim 16 wherein a bit field in the UDP

header is used to indicate that the compression operation is done.

18. (Previously Presented) The method according to claim 17 wherein bits comprised in the

range from bit 62 to bit 69 in the UDP header are used in indicate that the compression operation

is done.

19. (Previously Presented) The method according to claim 18 which comprises the step of setting

at least one of the bits from 62 to 69 of the UDP message header to 1.

20. (Previously Presented) The method according to claim 13 wherein the communication

between said at least one manager object and said at least one intermediate object is implemented

by means of SNMP messages, and comprises the following steps during the compression step:

- reading the entire SNMP message,

- encoding the read message in hexadecimal format, and

- subjecting the message encoded in hexadecimal format to compression.

21. (Previously Presented) The method according to claim 13 wherein communication between

said at least one manager object and said at least one intermediate object is implemented by

means of SNMP messages, comprises the following steps during the reception step:

- subjecting the received message to decompression complementary to said compression

operation, to obtain a message subjected to decoding in hexadecimal format,

- decoding the message from the hexadecimal format, and

- reconstructing the entire SNMP message from said decoded message.

Page 5 of 13

Atty Docket No.: 007516.00001

Response dated October 16, 2009 Reply to Office Action of July 21, 2009

22. (Previously Presented) The method according to claim 21 which comprises a nesting operation in a standard SNMP message for the transmission of the message subjected to said

compression operation.

23. (Previously Presented) The method according to claim 22 which comprises the following

steps during transmission:

- reading the message subjected to said compression operation in bytes and transposing it

into a corresponding ASCII character message,

- generating a variable binding set comprising a first OID indicating an original file size

and subsequent OID/value pairs which carry portions of said message subjected to said

compression operation transposed into ASCII characters,

- reconstructing SNMP message header data,

- encoding the resulting SNMP message in hexadecimal format to generate the UDP

payload, and transferring the UDP payload generated in this way.

24. (Previously Presented) The method according to claim 23 which comprises the following

steps during reception:

- receiving the message subjected to said compression operation as an UDP payload,

- subjecting the payload received in this way to a hexadecimal decoding operation,

- acknowledging and assembling the variable binding of the message subjected to

hexadecimal decoding,

- subjecting the message subjected to said acknowledging and assembling operation to

binary ASCII decoding, and

- subjecting the decoded message in binary form to said decompression operation.

25. (Previously Presented) The method according to claim 21 which comprises the step of

integrating the message subjected to said compression operation through UDP nesting for the

transmission of the message subjected to said compression operation.

Page 6 of 13

Atty Docket No.: 007516.00001

Response dated October 16, 2009

Reply to Office Action of July 21, 2009

26. (Previously Presented) The method according to claim 25 which comprises the following

steps during transmission:

- configuring said message subjected to said compression operation as a Protocol Data

Unit (PDU) payload, and

- transferring the payload created in this way to a given receiver port.

27. (Previously Presented) The method according to claim 26 which comprises the following

steps during reception:

- receiving said message as a payload of a PDU UDP received at a receiver port, and

– extracting said payload from said PDU.

28. (Previously Presented) The method according to claim 27 which comprises the step of

transmitting a synchronisation message of the SNMP type indicating at least one of said

transmission port and said reception port between said at least one manager object and said at

least one intermediate object.

29. (Previously Presented) A system for managing communication networks comprising at least

one manager object and at least one managed object, which comprises at least one intermediate

object implementing the method according to claim 1.

30. (Currently Amended) A computer-readable medium storing instructions that, when executed

by a processor, performs:

- managing at an intermediate object at least one managed object according to a data set,

said managing being transformed into a set of results,

- receiving, at said at least one intermediate object, said data set from said at least one

manager object,

- managing said at least one managed object through said at least one intermediate

object, to generate said set of results,

Page 7 of 13

Atty Docket No.: 007516.00001

Response dated October 16, 2009

Reply to Office Action of July 21, 2009

- transferring said set of results from said at least one intermediate object to said at least

one manager object,

- managing at least one further managed object directly through said at least one manager

object, and

- managing said at least one managed object by said at least one manager object via said

intermediate object,

wherein the management of said at least one further managed object and said at least one

managed object occurs only through a single communication network.

31. (New) The method according to claim 14, wherein a compressed message is generated

responsive to the acknowledgment of a sequence which appears periodically in the at least one

part of the respective messages prior to compression.